

Patent Abstracts of Japan

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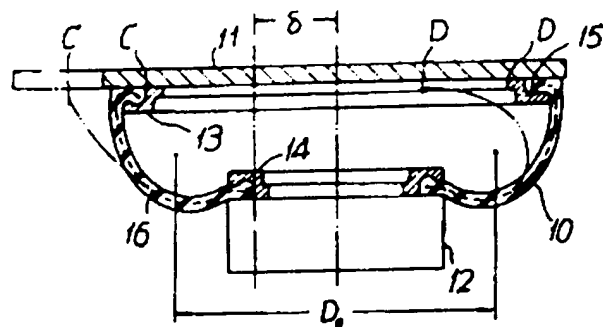
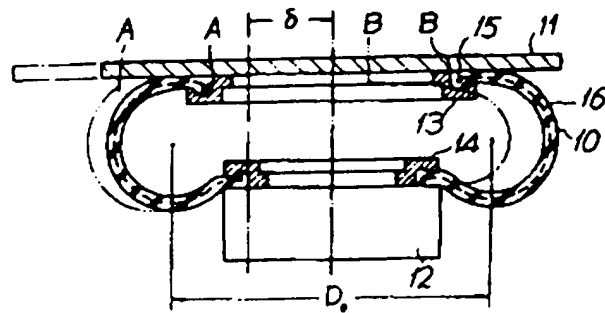
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INVENTOR : HIGASHIYA REI;

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TITLE : AIR CUSHION



ABSTRACT : PURPOSE: To give the anisotropy to the rigidity to prevent the accident due to the wear of bellows by a method wherein at least one of the fixing contours, along which one end of the rubber bellows is fixed to a fixing body, is arranged elliptically or oblongly.

CONSTITUTION: The rubber bellows 10 is fixed to define its fixing contour as a ellipse or an oblong with its minor axis in the front and rear direction of vehicle and its major axis in the right and left direction of vehicle. When the air cushion is displaced in the front and rear direction by the distance δ , the tensile force of bellows due to the inner air acting at the positions A and B of the fixing contour, along which the upper end of the bellows 10 is fixed to the upper face plate 11, has the relation that the air force at the point A is larger than that at the point B and so the bellows 10 is subjected to the air force to cause buckling. Consequently the self-aligning of the air cushion from this displaced state is done due to the rigidity of the bellows 10 itself and the low rigidity in the front and rear direction of the air cushion is resulted. On the other hand, when the air cushion is displaced in the right and left direction by the distance δ , the reaction due to the air force worked to the bellows 10 is added to the whole self-aligning force and the rigidity of the air cushion is increased.

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